Applicant: Ivan-William Fontaine et al. Attorney's Docket No.: 19152-002US1

Serial No.: 10/533,500 Filed: May 2, 2005

Page : 4 of 9

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

1-24 (Canceled)

25. (Previously Presented) An apparatus for accurately metering out powder, comprising:

a container of powder, comprising an adjustable opening through which the powder is dispensed, said opening being in direct communication with the container;

adjusting means for adjusting said opening; and

a checking means for checking the amount of powder dispensed, in relation with said adjusting means; and

a vibrating and/or tapping means for vibrating or tapping the container,

wherein the container further comprises a stirrer situated within the interior volume of said container, and

wherein said stirrer is arranged along an axis passing through the opening, said stirrer comprising:

a first end arranged near the mid-plane of the opening, and

a second end at the opposite end to the first end and which is connected to a device transmitting to the stirrer a back-and-forth movement along said axis passing through the opening, and possibly a rotary movement about said axis passing through the opening.

- 26. (Previously Presented) The apparatus as claimed in claim 25, which is capable to dispense powders with an accuracy of 100  $\mu$ g or better, preferably with an accuracy of 50  $\mu$ g or better, and more preferably still with an accuracy of 10  $\mu$ g or better.
- 27. (Previously Presented) The apparatus as claimed in claim 25, which is capable to dispense powders with a mean accuracy of 0.5 mg or better, preferably with a mean accuracy of

Applicant: Ivan-William Fontaine et al. Attorney's Docket No.: 19152-002US1

Serial No.: 10/533,500 Filed : May 2, 2005

Page : 5 of 9

0.2 mg or better, and more preferably still with a mean accuracy of 0.1 mg or better.

28. (Previously Presented) The apparatus as claimed in claim 25, in which the opening is adjustable to the extent of being completely closed off.

29. (Previously Presented) The apparatus as claimed in claim 25, in which the opening is in the shape of a triangle.

- 30. (Previously Presented) The apparatus as claimed in any claim 25, in which the opening is chosen from an opening with a plug valve or an opening with a slide valve.
- 31. (Previously Presented) The apparatus as claimed in claim 25, in which the container comprises a receptacle part and a stopper part.
- 32. (Previously Presented) The apparatus as claimed in claim 25, in which the container comprises a hopper feeding the opening.
- 33. (Previously Presented) The apparatus as claimed in claim 25, in which the adjusting means are controlled by software as a function of checking measurements supplied by the checking means.
- 34. (Previously Presented) The apparatus as claimed in claim 25, in which the adjusting means comprise a motor connected to a transmission element actuating the opening or closure of the adjustable opening.
- 35. (Previously Presented) The apparatus as claimed in claim 25, in which the checking means is a balance having a weighing accuracy of 0.1 mg or better.
- 36. (Currently Amended) The apparatus as claimed in claim 25, in which the means for tapping the container is a retractable finger that strikes the outside of the container.

Applicant: Ivan-William Fontaine et al. Attorney's Docket No.: 19152-002US1

Serial No.: 10/533,500 Filed: May 2, 2005 Page: 6 of 9

37. (Previously Presented) The apparatus as claimed in claim 25, in which the stirrer is a

rod.

38. (Previously Presented) The apparatus as claimed in in claim 25, in which the first end

of said stirrer comprises a rod and the second end of said stirrer comprises a leaf bent back on

itself to form a loop that is elongate along said axis passing through the opening, said leaf

comprising fins which project from the interior surface of the bent-over leaf toward said axis.

39. (Previously Presented) The apparatus as claimed in claim 25, in which the device

transmitting a back-and-forth movement to the stirrer comprises:

a transmission means connected to the second end of the stirrer,

a pushing means,

a pulling means,

said pushing means transmitting a translational movement to said transmission means in

a first direction along the axis of said transmission means and said pulling means transmitting a

translational movement to said transmission means in the opposite direction to the first direction.

40. (Previously Presented) The apparatus as claimed in claim 25, in which the device

transmitting a rotary movement to the stirrer comprises a transmission means connected to the

second end of the stirrer, said transmission means comprising driving gearing which is driven by

drive gearing fixed to a motor.

Applicant: Ivan-William Fontaine et al. Attorney's Docket No.: 19152-002US1

Serial No.: 10/533,500 Filed: May 2, 2005 Page: 7 of 9

41. (Previously Presented) The apparatus (1) as claimed in claim 25, in which:

the first end of said stirrer comprises a rod and the second end of said stirrer comprises a leaf bent back on itself to form a loop that is elongate along said axis passing through the opening, said leaf comprising fins (which project from the interior surface of the bent-over leaf toward said axis,

the device transmitting a back-and-forth movement to the stirrer comprises a transmission means connected to the second end of the stirrer, a pushing means, a pulling means, said pushing means transmitting a translational movement to said transmission means in a first direction along the axis of said transmission means and said pulling means transmitting a translational movement to said transmission means in the opposite direction to the first direction,

the device transmitting a rotary movement to the stirrer comprises a transmission means connected to the second end of the stirrer, said transmission means comprising driving gearing which is driven by drive gearing fixed to a motor.

- 42. (Previously Presented) The apparatus as claimed in claim 25, in which the tapping means and/or the stirrer are controlled by software as a function of checking measurements supplied by the checking means and possibly as a function of characteristics of the powder.
- 43. (Previously Presented) The apparatus as claimed in claim 25, in which the container further comprises a scraper, preferably a curved blade or a rotary brush.
- 44. (Previously Presented) A process for accurately metering out powders employing the apparatus as claimed in claim 25, comprising one or more of the following steps:

bringing the container into the metering position,

using the adjusting means to open the adjustable opening,

possibly vibrating or tapping the container,

using the checking means to measure the amount of powder dispensed,

using the adjusting means to open or close the adjustable opening as a function of the measurement returned by the checking means,

Applicant : Ivan-William Fontaine et al.
Serial No. : 10/533,500

Attorney's Docket No.: 19152-002US1

Serial No. : 10/533,500 Filed : May 2, 2005 Page : 8 of 9

adjusting the means that vibrate and/or tap the container as a function of the measurement returned by the checking means.